

of the pectorals, which appears to be a character of some importance, and which has led to the generic name of *Aplodactylus*, amounts in this specimen to six, being two more than was observed by M. Valenciennes in his, though the total number of rays in this fin is the same. I may also allude to the circumstance of the dorsal being invested at the base with a thickened membrane on each side, closely covered with small scales, which extends over nearly its whole length, but is most conspicuous along the spinous portion. This character is not mentioned by M. Valenciennes. Neither does he mention the rows of minute scales, which occur between the rays of all the fins, except the ventrals.

Mr. Darwin's specimen of this fish is eleven inches in length. The following is the fin-ray formula :

B. 6; D. 15—1/21; A. 3/8; C. 17. &c.; P. 9—vi; V. 1/5.

1. DULES AURIGA. *Cuv. et Val.*

Dules Auriga, *Cuv. et Val.* Hist. des Poiss. tom. iii. p. 83. pl. 51.

FORM.—This species is remarkable for the prolongation of the third dorsal spine, which, in the present specimen, is not quite equal to half the entire length of the head and body; a small portion, however, appears to have been broken off. The greatest depth is contained three and a half times in the entire length. The head, measured to the extremity of the opercular membrane, exactly equals the depth. The line of the profile is not quite straight, there being a slight depression at the nape, above which is a convexity in immediate advance of the dorsal fin. The lower jaw is a very little the longest. The eyes are large; and the distance between them barely equals their diameter. The other characters are exactly as stated in the "Histoire des Poissons."

B. 6; D. 10/13; A. 3/7; C. 17; P. 17; V. 1/5.

Length 5 inches 3 lines.

COLOUR.—The recent colours are given by Mr. Darwin in his notes as follows: "Sides with numerous waving longitudinal lines of brownish red; the intermediate spaces greenish-silvery, so figured as to look mottled. Head marked with lines of dull red and green. Ventral and anal fins dark greenish blue."—He does not notice the vertical bands alluded to by Cuvier and Valenciennes, which are sufficiently obvious, and which accord with the figure and description of the authors just mentioned.

Habitat, Maldonado Bay, Rio Plata.

2. DULES LEUCISCUS. *Jen.*

Dules malo, *Val.* ? Hist. des Poiss. tom. vii. p. 360.

D. pinnis caudali, anali, dorsalique molli, nigro-marginatis; dorsali profundè emarginatè, spinè ultimà radiis articulatis breviorè; operculo mucronibus duobus, inferiore maximo, armato; preoperculo margine adscendenti levissimè denticulato, basali denticulis fortioribus.

B. 6; D. 10/11; A. 3/12; C. 16, &c.; P. 13; V. 1/5.

LONG. unc. 4. lin. 5.

FORM.—General form resembling that of a small *Dace*. Greatest depth about one-third of the entire length, caudal excluded. Length of the head rather less. Dorsal line falling with the profile in one continuous gentle curve. Eyes large; their diameter contained two and a half times in the length of the head: the distance between them less than one diameter. Suborbitals finely but very conspicuously denticulated. Jaws nearly equal; the lower one a little the longest. In each, a band of velutine teeth, with the outer row rather longer than the others. Opercle with two points, the lower one most developed. Preopercle with the limb striated: the ascending margin with the denticulations so fine as to be hardly sensible to the naked eye; those on the basal margin larger and more obvious. Scales of a moderate size; about forty-three in a longitudinal row; their free portions finely striated. Cheeks and opercle scaly; crown naked, with a shallow groove above each eye. Lateral line at first slightly descending, but afterwards straight; its course, until past the dorsal and anal fins, a little above the middle of the depth. Dorsal deeply notched: the anterior portion consisting of nine spines; the first very short, and scarcely more than half the length of the second; third and fourth longer, increasing gradually; fifth and sixth equal and longest, equalling half the depth of the body; seventh, eighth, and ninth, shorter, and gradually decreasing; the tenth spine, with which the second portion of the fin commences, is of the same length as the fifth, but not quite so long as the soft rays which follow; these soft rays, however, gradually become shorter, the last two not more than equalling the second spinous. The whole space occupied by the dorsal is more than one-third of the entire length. Anal commencing in a line with the ninth dorsal spine; its own three spines gradually increasing in length, but the second the strongest; soft portion of this fin longer than the corresponding portion of the dorsal, and terminating a little nearer the caudal. Vent in a line with the seventh dorsal spine. Pectorals small, reaching to the vent. Ventrals attached a little further back, and reaching a very little beyond it. Caudal forked.

COLOUR.—(*In spirits.*) Silvery, tinged on the back, and above the lateral line, with bluish grey, and somewhat mottled in places with darker spots. Fins yellowish-grey, tinged with dusky. The caudal, anal, and soft portion of the dorsal, are a little mottled with dusky, besides having a black edging; there is also a conspicuous black spot at the anterior angle of this last fin.